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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,654

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EXAMINER

TAMAI, KARL I

ART UNIT

PAPER NUMBER

2834

NOTIFICATION DATE

DELIVERY MODE

09/28/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/572,654	Applicant(s) TSUKASHIMA ET AL.	
	Examiner KARL I.E. TAMAI	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 10 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/10/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The objection to the drawings is withdrawn.

Claim Objections

2. The objection to Claims 1-12 and 14-16 is withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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5. Claims 1, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagi et al. (Kumagi)(JP 54-115704), Inoue (JP 2001-095195), Sprando (US 2781463), and Sakaguchi et al. (Sakaguchi)(US 4219748). Kumagi teaches an electric machine having a stator winding including a coil 2 and a flexible copper, lead wire 4, where the lead wire and said coil being affected by varnish treatment (see abstract) such that the lead wire and the coil are hardened by permeation of varnish. The lead wire 4 does not include a structure for preventing varnish treatment. Kumagi teaches the lead wire is flexible to provide workability and prevent wire breakage. Kumagi does not teach the stator winding being a motor or the lead wire is used for externally connecting the coil of with external wiring through a terminal block electrically having a first contact electrically connecting an internal conductor and the external wiring, and a second contact electrically connecting the internal conductor and the lead wire, where the flexible member is made of a different material than the lead wire and that is higher than said lead wire in flexibility, or the lead wire being attached to the second contact in a rotation shaft direction and said flexible member is connected to the second contact by a perpendicular bend in the flexible member. Inoue teaches a motor with a flexible, aluminum lead wire 11 is used for externally connecting the coil of with external wiring through a terminal block 10 having a first contact (outside the housing) electrically connecting an internal conductor (middle portion of connection terminal 10) and the external wiring, and a second contact (inside the housing) electrically connecting the internal conductor and the lead wire 11, or the flexible member connected to the tip of the lead wire by caulking.

Sprando (US 2781463) teaches the lead wire from the motor coil 17 being indirectly attached to the second contact 41 in a rotation shaft direction 14 via the flexible member 48 which is connected to the second contact by a perpendicular bend in the flexible member (lead 48, see figure 1) to provide easy routing of power to the hermetically sealed motor form the second connector. Sakaguchi teaches lead wires can be connected by caulking or soldering (col. 5, lines 58).

It would have been obvious to a person of ordinary skill in the dynamoelectric machine art at the time of the invention to construct the machine of Kumagi, as a motor to provide mechanical power, with the lead wire and terminal of Inoue to provide a reliable connection to external power, as taught by Inoue, with the flexibility of the lead wire being greater than the stator coil to provide workability and prevent wire breakage, as suggested by Kumagi, and with the material of the lead wire being different than the stator coil to optimized the conductivity, flexibility, and cost of providing the electrical wiring, and because it has been held that selection of the material based on intended use is within the ordinary skill in the art (See *In re Leshin*, 125 USPQ 416), and with the the lead wire being attached to the second contact in a rotation shaft direction and said flexible member is connected to the second contact by a perpendicular bend in the flexible member to provide easy routing of the power connection from the terminal to the motor windings as taught by Sprando, and with the flexible member connected to the tip of the lead wire by caulking to provide a quick, known mechanical connection between the conductors, as suggested by Sakaguchi, and because selection between know

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equivalents (as taught by Sakaguchi) is within the ordinary skill in the art to facilitate a good electrical connection in motors.

In regards to claims 14 and 15, Kumagi teaches the conductor is copper with is a material which suppresses varnish treatment and is not hardened by varnish treatment. The examiner notes that a manual translation of Kumagi has been requested and will be made available to the applicant when requested.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagi et al. (Kumagi)(JP 54-115704), Inoue (JP 2001-095195), Sprando (US 2781463), and Sakaguchi et a. (Sakaguchi)(US 4219748), in further in view of Sasamoto et al. (Sasamoto)(US 5132584). Kumagi, Inoue, Sprando and Sakaguchi teach every aspect of the invention except the flexible member being a braided wire or a plate like conductor. Sasamoto teaches the flexible braided wire 57 (col. 6, line 58) or a plate like conductor with a deformable portion 57a (col. 6, line 37) to conducts electricity to the stator windings but reduces the transmissions of vibrations between the stator and the support. It would have been obvious to a person of ordinary skill in the dynamoelectric machine art at the time of the invention to construct the machine of Kumagi, Inoue, Sprando, and Sakaguchi with a braided or plate conductor to provide an electrical conductor with reduced vibration transmission, as taught by Sasamoto.

7. Claims 4, 5, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagi et al. (Kumagi)(JP 54-115704), Inoue (JP 2001-095195), and Sprando (US

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2781463) and Sakaguchi et al. (Sakaguchi)(US 4219748), in further in view of Katsuzawa et al. (Katsuzawa)(US 20020050752). Kumagi, Inoue, Sprando, and Sakaguchi teach every aspect of the invention except the first contact has a structure where the internal conductor and the external wiring are allowed to mate with each other in a perpendicular direction to a rotation shaft of a motor, and the lead wire is attached to the second contact in the rotation shaft direction of the motor. Katsuzawa teaches the terminal block (10) having an internal connector 81 with first contact below power terminal 84 mating perpendicular to the shaft with the internal conductor 81 via screw 82 and a second contact that mates with the stator winding leads 7 which have a deformation perpendicular to the shaft (figure 12) and a plate terminal 83 on the tip of the flexible lead 7 and connected to the internal connector 81 by a fixing screw 82. It would have been obvious to a person of ordinary skill in the dynamoelectric machine art at the time of the invention to construct the machine of Kumagi, Inoue, Sprando, and Sakaguchi with connection terminal of Katsuzawa to easy connection and inspection of the windings, as taught by Katsuzawa.

8. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagi et al. (Kumagi)(JP 54-115704), Inoue (JP 2001-095195), Sprando (US 2781463), Sakaguchi et al. (Sakaguchi)(US 4219748), and Sasamoto et al. (Sasamoto)(US 5132584), in further in view of Katsuzawa et al. (Katsuzawa)(US 20020050752). Kumagi, Inoue, Sprando, Sakaguchi, and Sasamoto teach every aspect of the invention except the first contact has a structure where the internal conductor and

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the external wiring are allowed to mate with each other in a perpendicular direction to a rotation shaft of a motor, and the lead wire is attached to the second contact in the rotation shaft direction of the motor. Katsuzawa teaches the terminal block (10) having an internal connector 81 with first contact below power terminal 84 mating perpendicular to the shaft with the internal conductor 81 via screw 82 and a second contact that mates with the stator winding leads 7 which have a deformation perpendicular to the shaft (figure 12) and a plate terminal 83 on the tip of the flexible lead 7 and connected to the internal connector 81 by a fixing screw 82. It would have been obvious to a person of ordinary skill in the dynamoelectric machine art at the time of the invention to construct the machine of Kumagi, Inoue, Sprando, Sakaguchi, and Sasamoto with connection terminal of Katsuzawa to easy connection and inspection of the windings, as taught by Katsuzawa.

9. Claims 8, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagi et al. (Kumagi)(JP 54-115704), Inoue (JP 2001-095195), Sprando (US 2781463), Sakaguchi et al. (Sakaguchi)(US 4219748), in further view of Hoshi et al. (Hoshi)(JP 10-243601). Kumagi, Inoue, Sprando, and Sakaguchi teach every aspect of the invention except the flexible member is formed by a plate-like conductor/bus bar having a spring-like portion and connected to the tip of the lead wire, wherein said second contact has a terminal formed at a tip of said plate-like conductor, and a fixing member fastening the terminal and the internal conductor to each other and thereby electrically connecting them, wherein the plate-like conductor/bus bar is inserted into

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said terminal block along a motor rotation shaft direction, and the terminal is fastened to said internal conductor by said fixing member in a state where said spring-like portion is deformed such that said terminal is positioned along a perpendicular direction to said motor rotation shaft direction. Hoshi teaches the plate like flexible conductor 13A-13B is spring-like (bendable) with a connection tip to the lead wire (see fig. 3) and a plate like terminal at the second contact. Hoshi fig. 3 shows a fixing member extending through the plate terminals 12a3 and the plate terminal 13A (fig. 3), with the plate terminal being perpendicular to the rotation shaft direction to keep noise from entering the terminal box (see abstract). It would have been obvious to a person of ordinary skill in the dynamoelectric machine art at the time of the invention to construct the machine of Kumagi, Inoue, Sprando, and Sakaguchi with the flexible member is formed by a plate-like conductor having a spring-like portion and connected to the tip of the lead wire with a terminal formed at a tip of plate-like conductor being perpendicular to the rotation shaft direction and with a fixing member fastening the terminal and the internal conductor to each other to prevent noise from entering the terminal box, as taught by Hoshi. The examiner notes the plate-like conductor being inserted into said terminal block along a motor rotation shaft direction is a method of making limitation that is not germane to the patentability of the apparatus.

In regards to claim 9, Kumagi teaches the lead wire is stranded and bundled fine wires (translation page 5, lines 1-2).

Allowable Subject Matter

10. Claims 10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new grounds of rejection.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (571) 272 - 2036.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mrs. Quyen Leung, can be reached at (571) 272 - 8188. The facsimile number for the Group is (571) 273 - 8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Karl I Tamai/
PRIMARY PATENT EXAMINER
September 23, 2010